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## phospho-Smad3 (Thr179) Rabbit pAb

Catalog Number: bs-19452R

Target Protein: phospho-Smad3 (Thr179)

Concentration: 1mg/ml

Form: Liquid

Host: Rabbit

Clonality: Polyclonal

Isotype: IgG

Applications: IHC-P (1:100-500), IHC-F (1:100-500), IF (1:100-500), Flow-Cyt (1ug/Test), ICC/IF (1:100)

Reactivity: Human, Mouse, Rat (predicted:Pig, Sheep, Cow, Dog, Horse)

Predicted MW: 48 kDa

Entrez Gene: 4088

Swiss Prot: P84022

Source: KLH conjugated synthesised phosphopeptide derived from human Smad3 around the phosphorylation site of Thr179: PE(p-T)PP.

Purification: affinity purified by Protein A

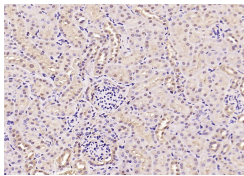
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

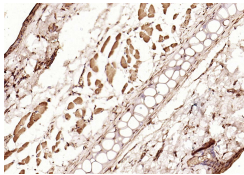
**Background:** Smad3 is a 50 kDa member of a family of proteins that act as key mediators of TGF beta superfamily signaling in cell proliferation, differentiation and development. The Smad family is divided into three subclasses: receptor regulated Smads, activin/TGF beta receptor regulated (Smad2 and 3) or BMP receptor regulated (Smad 1, 5, and 8); the common partner, (Smad4) that functions via its interaction to the various Smads; and the inhibitory Smads, (Smad6 and 7). Activated Smad3 oligomerizes with Smad4 upon TGF beta stimulation and translocates as a complex into the nucleus, allowing its binding to DNA and transcription factors. Phosphorylation of the two TGF beta dependent serines 423 and 425 in the C terminus of Smad3 is critical for Smad3 transcriptional activity and TGF beta signaling.

### VALIDATION IMAGES

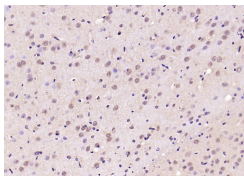
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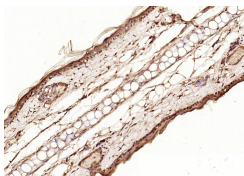
Paraformaldehyde-fixed, paraffin embedded (rat kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-Smad3 (Thr179)) Polyclonal Antibody, Unconjugated (bs-19452R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



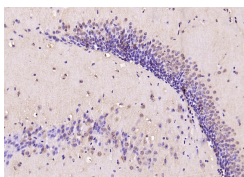
Paraformaldehyde-fixed, paraffin embedded (mouse skin); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-Smad3 (Thr179)) Polyclonal Antibody, Unconjugated (bs-19452R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



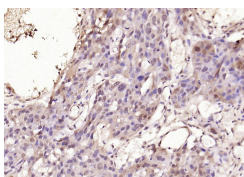
Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-Smad3 (Thr179)) Polyclonal Antibody, Unconjugated (bs-19452R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat skin); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-Smad3 (Thr179)) Polyclonal Antibody, Unconjugated (bs-19452R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-Smad3 (Thr179)) Polyclonal Antibody, Unconjugated (bs-19452R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human skin cancer); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-Smad3 (Thr179)) Polyclonal Antibody, Unconjugated (bs-19452R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.

## PRODUCT SPECIFIC PUBLICATIONS

[IF=4.225] Yang Fan. et al. Catalpol Protects Against Pulmonary Fibrosis Through Inhibiting TGF- $\beta$ 1/Smad3 and Wnt/ $\beta$ -Catenin Signaling Pathways. Front Pharmacol. 2021 Jan;11:2472 WB ; Rat . 33584272

[IF=3.18] Zhang, Hongjun, et al. "Magnolol Attenuates Concanavalin A - induced Hepatic Fibrosis, Inhibits CD4+ T Helper 17 (Th17) Cell Differentiation and Suppresses Hepatic Stellate Cell Activation: Blockade of Smad3/Smad4 Signalling." Basic & Clinical Pharmacology & Toxicology (2016). WB ; ="" . 28032440

[IF=3.3] Bin Li. et al. Bifidobacterium longum-Derived Extracellular Vesicles Prevent Hepatocellular Carcinoma by Modulating the TGF- $\beta$ 1/Smad Signaling in Mice. FRONT BIOSCI-LANDMRK. 2024 Jun;29(7):241 WB ; Mouse . 10.31083/j.fbl2907241